



Application No. 09/809,090
Docket No. 0404-00701US

Examiner NIKITA WELLS
Art Unit 2881

REPLY TO NON-FINAL OFFICIAL ACTION

In reply to the official action mailed on July 30, 2003, please amend the above-referenced patent application as follows.

In the Claims

1.(Currently Amended) Detector for a time-of-flight mass spectrometer comprising:
an electron multiplier, for converting a charged particle into a multiplicity of electrons; and
a scintillator, for converting the multiplicity of electrons into a multiplicity of photons; and
a charge collector disposed for receiving the multiplicity of photons and adapted for reconverting said photons into a second multiplicity of electrons and integrating said second multiplicity of electrons into a charge pulse corresponding to the mass of the charged particle;
whereby said ~~detector~~ charge collector is electro-optically isolated from ~~a high voltage portion of the time-of-flight mass spectrometer~~ said electron multiplier.

2.(Currently Amended) Detector of claim 1, ~~further comprising wherein said~~ charge collector comprises a photomultiplier for converting the multiplicity of photons into ~~a corresponding~~ the second multiplicity of electrons.

3.(Currently Amended) Detector of claim 2, wherein said photomultiplier ~~sums~~ is adapted for summing the second multiplicity of electrons into a the charge pulse.

4.(Currently Amended) Detector of claim 1, ~~further comprising a coating on wherein~~ said electron multiplier comprises a coating formed on a surface thereof, said coating being formed of a material selected from the group consisting of aluminum oxide (Al₂O₃), magnesium oxide (MgO), tin oxide (SnO₂), quartz (SiO₂), barium

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